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Dear Cooperator:

Rapid Growth of Districts Continues As Many New Areas Are Established

Twenty-two soil conservation districts have now been organized in South Dakota. This means that there are two new districts since the last issue of the ZEPHYR.

The twenty-first district was the Jackson Soil Conservation District which embraces all of Jackson County.

The twenty-second area organized includes approximately seven townships in Minnehaha County.

Both of these districts were set up with a high percentage of the land voting and better than 80 per cent favorable vote.

The twenty-third district will soon be completed in Gregory County. This is an area of approximately 100,000 acres. The referendum there has been scheduled.

The State Committee has ruled favorably on hearings held in Codington and Tripp Counties.

The Codington District will be known as the Northeast Codington Soil Conservation District and the one in Tripp County will be called the Hamill District. Referendums are now being conducted in these two areas.

A petition has been circulated in Hand County for the creation of a district in the Ree Heights area. The date for the hearing there will be set by the State Committee this month.

Planning committees have outlined a program of educational meetings in Day County and petitions are being circulated there with the thought in mind of establishing a district.

Present indications are that there will be at least twenty-seven soil conservation districts in the state by the time spring work begins. These districts will cover an area in excess of 6,000,000 acres. When we consider that the first district just celebrated its fourth birthday last month, this may be considered as a phenomenal growth. The district program must be meeting needs of farmers and ranchers in the state or the growth would not be so rapid.

Highway Erosion Is Costly
Says Conservator McClymonds

The general public has its own stake in soil and moisture conservation --reduction in highway maintenance costs. This was clearly shown as recently as September 14. A heavy rain dumped from 4 to 6 inches of water--a good deal of damage to highways was reported.

Most of the water which caused the damage was uncontrolled, silt-laden runoff from farm lands adjacent to the roads. Highways at several places were covered with silt several inches deep--parts of the embankments were cut away. Prevention of such damage depends on the action of both owners and the public.

Not all the water from a heavy rain can be held on the land, but it can be disposed of under control. Where land owners adopt conservation practices--runoff is retarded, erosion checked, moisture soaks into the ground and the runoff carries none or little of the silt.

The public's part consists of establishing protective measures along the roadsides--the job to be done is to slope the roadsides as gently as practical and seed them to grass. Incidentally, grass along the highway is of value, where it exists on gentle slopes and can be cut for hay. - - From a news article by A. E. McClymonds, Regional Conservator.

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The weed control program in the Emanuel-Choteau District has been in operation one year with marked success. Almost four hundred acres were cultivated for control of creeping jenny and rye has been seeded on this acreage. The supervisors bought a tractor to make this project possible.

Contoured Fields Yield Higher And
Operation Costs Are No Larger

Does it cost more to grow corn on the contour than it does by the conventional up-and-down hill method? We have many reports from farmers which would indicate that contouring is a cheaper way in which to produce a crop. Walter L. Ruden of the Nebraska College of Agriculture had a little light to shed on the question when he announced results of a study of the effect of contouring on the cost of producing corn, wheat and oats in one of the Nebraska districts. Ruden and Dr. L. F. Garey made the study.

The cost records collected by the Rural Economics Department show there was no significant difference in the cost of caring for contoured corn as compared with non-contoured corn in 1940. Where contoured fields averaged a little smaller in size, there was no additional time required to farm on the contour as compared with the common method of laying out rows parallel to the edge of the field.

The yield of contoured corn was about 8 bushels higher than that on non-contoured corn in that part of the district where there were intense rains. Contouring, of course, prevents runoff when it rains. Local observers believed that the higher yields were due to the timeliness of rains rather than to the total amount of precipitation.

This study is being continued by the Rural Economics Department and additional records are being collected this year to find the effectiveness of contouring on crop yields and the effect of soil and moisture saving practices on cost of production.

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Save the soil and you save all.

R. J. Baker Says Terraces Stop Runoff

Down in the Mount Hope watershed in the Sioux-Brule District in Union County a dozen farmers have gone together to plan their farms cooperatively with the thought in mind that all the erosion and moisture losses must be controlled in order to bring about maximum benefits. R. J. Baker lives in this area--in fact his is the last farm on the watershed. Here is what he thinks of the group conservation action:

"My farm in the south half of section 25 is the lowest land affected in the project under consideration. I believe there is in the neighborhood of 1600 to 1700 acres affected in this area. Of course being on the lowest farm in this area, this farm gets the bulk of the runoff and has flood conditions after every heavy rain farther up the watershed.

"I believe that when this area goes in for terracing or even contour farming that the whole area will receive noticeable benefits. I base my opinion after watching the effect of an 80 acre field adjacent to me on the northwest (a farm owned by Mr. S. C. Elliott). This 80 acres was terraced about four years ago in cooperation with the Alcester CCC Camp. I would say that Mr. Elliot is now saving 75 percent more water due to the terrace system than he was before the work was done. All of the water which drains off the above 80 acres drains onto and past my northwest corner. Prior to the terracing I have seen water run down from this watershed in sufficient quantities to wash farm implements such as plows, wagons, etc., past and onto the corner of my farm. Since the terraces have been completed the runoff has been decreased to the point where the runoff water is nearly negligible. These are facts which can easily be corroborated by a number of neighbors."

District Sponsors First

Contour Plowing Contest

What is believed to be the first contour plowing contest in the United States was sponsored by the LaCrosse County, Wisconsin, soil conservation district supervisors. Plowing matches for straight furrows have been popular with farmers for many years but this contour contest adds a new feature to contests in methods of ground breaking.

Contestants were chosen in four district contests in Wisconsin and one contestant each was selected from Minnesota and northeastern Iowa. The match included contests for both tractor-drawn and horse-drawn plows.

An added attraction was a contest for high school boys in laying out contour lines.

Recently in Nebraska, to demonstrate the decreased power need when pulling machines on the level a unique demonstration was arranged. A comparison was made of the number of men necessary to pull a disk on the level and the number needed to pull the same disk up hill. This was an effective method of showing power needs on the contour as compared with up-and-down hill farming. This event was part of the activities planned during a tour of a conservation district.

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Soil conservation districts all over the state are now buying their own equipment to assist them with their soil and moisture conservation program. Recently one district bought two grain drills, another bought a tractor, and still a third bought some earth-moving equipment. As districts get on their feet, and as the demand for assistance grows the districts are meeting the situation through their own initiative. Districts are truly democracy at work.

Terrace Results Get Better Each Year Make Water Walk Instead of Run

Building a terrace is like planting a tree--it gets better and better every year. Terracing continues to improve the land for years and years. Preventing erosion is only one benefit derived from terracing, for it saves the plant food that otherwise is dissolved by the rainfall and runs off when the steep fields are not terraced. It saves all or nearly all the rain-water that falls, which soaks into the soil and comes back up through the plants, making a better crop.

Tom M. Marks, County Agent At Large, from the state of Oklahoma, recently stated, "Several times I have sent out questionnaires to farmers who have had a year or more experience with terraces asking them for their estimation of the value of the terraces per acre. The averages of these questionnaires never ran less than \$10 an acre. The cost of building terraces runs from fifty cents to \$2, seldom over. They make the water walk instead of run."

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Ponds For Wildlife-Bulletin Available

"Ponds For Wildlife" is the title of a new farmers bulletin just released. In its 45 well-illustrated pages can be found much interesting and valuable material. Copies may be obtained at the county agent's office or by writing to this office.

Quoting from the summary of this bulletin: "The first purpose of this bulletin is to show how farmers and ranchers may protect their ponds from sedimentation, soil erosion, and water loss through the use of vegetation suitable as food and shelter for wildlife; the second is to give some information on the management of wildlife in farm ponds.

Trees On 78 Percent District Farms

Farmstead plantings have been or will be made on over 78 percent of the farms covered by agreements with the Silver Creek soil conservation district. The 22 percent on which farmstead plantings are not planted include 26 or 16 percent on which there are no buildings or feed lots to protect, and 6 percent on which a planting is not practical.

The 78 percent is described in this manner by W. R. Jamison, chairman of the Board of Supervisors: 43 plantings completed by the District, 9 percent plantings to be made, and 26 percent on which there is a planting other than by the District. On 75 of these farms covered by agreement shelterbelts have been planted, and plans have been made for planting 13 more in the future.

The technicians in the district cooperate with the Shelterbelt in planting trees on farms within the boundaries of the district. The Shelterbelt plants the fieldstrips, and the farmstead plantings are made by the district. The plantings of the district also include wildlife plantings along stream banks and around dams and dug-outs. It is the aim of the district supervisors to have all farmsteads and feed lots protected by tree plantings, as well as have the areas vulnerable to wind erosion protected by field strips. A total of nearly 123,000 trees were handled through the district on about 215 acres in the spring of 1941.

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Subsurface tillage on the George Egger farm in the Pennington District proved so successful this year that Mr. Egger purchased a sub-tiller and worked all of his crop land with that implement this fall.

Districts Continue To Grow Through Additions to Original Areas

Seven of the first eight districts organized in the state already have added territory one or more times. The state law provides an easy method by which any district may increase its size as local people see the need for these increases. Other districts are at this time circulating petitions for the inclusion of additional territory.

The typical hearing held when territory is added can be judged by the following report of a hearing held in the Brown-Marshall district:

"The hearing for the inclusion of Libert and Greenfield townships was attended by 40 landowners and others. Mr. Ross Davies, secretary of the State Committee, conducted the hearing.

"Roy Glover acted as chairman for the petitioning farmers and gave an historical background of the various agricultural experiences of grass to crops in the early nineties, back again to grass, then again to crops in the 1900's, and then to the attempts being made now to establish grass again. Other farmers substantiated the need for additional grass in the area. It was the consensus of opinion of all the farmers present that the townships be included.

"A display of sods produced by crested wheat, brome grass and reed canary grass was prepared by the district agronomist and created much interest and comment."

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The supervisors of the Tri-County District, which already covers more than a million acres, have approved the addition of a few more townships; and petitions are now being circulated for their inclusion.

Topics of Interest From Here And There

To prevent the overgrazing of native pastures, farmers in the Brule-Buffalo Soil Conservation District increased the use of supplemental pasture this past summer. The use of rye and sudan grass proved very satisfactory.

Alden Walsh, Brule County farmer living north of Kimball, had just such a pasture. Mr. Walsh planted his rye and sudan in strips to aid in wind erosion control. Many farmers are worried as to the possibilities of livestock poisoning in using sudan pastures, but Walsh stated that no poison effects could be noticed at any time and that the cattle were in very good condition.

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Radio programs on soil and moisture conservation will be heard regularly over most South Dakota stations in the near future. Arrangements are now being completed for a regular time for Extension Service programs every day over the state stations. One program every other week will be devoted to conservation. As soon as the schedules are completed we will try to get the word out to you so that you may hear reports on conservation from the different districts. Plans are that most of the programs will be transcriptions which have been made in the districts.

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The third annual meeting of the South Dakota Association of Soil Conservation Districts will be held in Pierre on February 9 and 10. This meeting is being arranged by the board of directors of the association and an interesting and instructive program has been arranged. This meeting is scheduled primarily for supervisors of soil conservation districts to give them an opportunity to exchange experiences.

Tractor Fuel Is Cheaper Than Raindrops

E. A. Grönlund of Volin, who is a supervisor in the Clay County District, has been having some very good results with his contour farming. Oats that were seeded on a field that was in contoured corn last year yielded 10 bushels more per acre than the other oats on his farm. He has also bladed in a gully and seeded it to perennial grasses. His corn on the contour this year was outstanding.

Recently the Extension Service made a radio transcription on his farm and discussed the above points. There was one minute's time left on the recording when the rehearsed part of the broadcast had been completed. The interviewer asked, "Does this contouring take more time and cost any more than the old checker board system of up-and-down hill farming?"

"No, I don't think it does," was the ready response, "and even if it did I would rather buy tractor fuel than attempt to buy rain drops." Nuff said.

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CCC Camps Assisting Seven Districts

Since the last issue of the ZEPHYR one of the CCC Camps assisting soil conservation districts has been abandoned. This was in accordance with the national program of camp reductions brought about by a decrease in enrollments.

The CCC Camp at Huron was abandoned, the veterans moved to Alcester and the Junior enrollees there were moved to other camps. This leaves three camps in the state that are assigned to the Soil Conservation Service. These camps are located at Alcester, Fort Meade, and Chamberlain and are assisting district supervisors in seven soil conservation districts.

Dugouts Popular Water Saving Structure

Dugouts are rapidly becoming very popular in South Dakota. A dugout is just another name for a large hole in the ground, located in the low spot in the pasture. This supplies a source of water for livestock in an area where it is impractical to build a dam due to unfavorable topography. These dugouts are beginning to dot the landscape in ever-increasing numbers and are one of the water conservation practices demonstrated in soil conservation districts.

A dugout is a water storage basin excavated in the channel of a natural drainage. The dugout is often combined with a small dike which provides additional water storage by retention or impoundment in the channel above the level of the excavation.

A dugout should be located:

(1) At a point where the drainage from an area of 60 acres or more may be concentrated.

(2) At a point in the natural drainageway where soil conditions to a depth of 8 feet are such that seepage losses will be small.

(3) At a point where the greatest possible depth and storage can be obtained with the least excavation and fill.

(4) At a point where a flat bench above the channel may be used for a natural spillway to handle excess water.

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Approximately 100,000 pounds of crested wheat grass was harvested this summer in the Lemmon area. This seed was obtained from fields which had been planted on abandoned crop land under the Land Utilization Program.

Conservation Week Outstanding

Says Ed Dwight, Chairman

Conservation Week was observed in South Dakota the week of September 15 to 20, by proclamation of Governor Harlan J. Bushfield. This is the first time that a Conservation Week has been set aside in the state and the practice will undoubtedly be continued.

"The Week was so successful," stated Ed Dwight, Chairman of the South Dakota Association of Soil Conservation Districts, "that we intend to ask the Governor to proclaim another one next year, and we hope to make it an annual affair." The District Association was the group who sponsored the Week and it was through their efforts that the Week was proclaimed and was so successful.

A barrage of publicity was released for the weekly and daily papers during this period. Articles by Ed Dwight and Frank Feser, vice-chairman of the group, were released to the weekly papers. Articles by Ross D. Davies, A. L. Ford, John V. Hepler, A. L. Barnes, J. W. Cluett, Emil Loriks, and Ralph E. Hansen were used by most of the daily papers. These stories dealt with the importance of conservation, the erosion problem, and the efforts of the different agencies to assist farmers and ranchers with their conservation problems.

The radio stations in the state all assisted with publicity for the Week by making from three to five minutes available on their stations each day of conservation week. Transcriptions were prepared by Bob Wheeler, Extension Radio Specialist, and these recordings were scheduled through him for every station in the state. Conservation leaders heard on these transcriptions were John Dawson, District Supervisor from Union County; Horace Wagner, District Supervisor from Lyman County; Ross D. Davies; John V. Hepler; Millard

Sub-Surface Tillage Pays

Lyman County Farmer

According to Clarence Lindley, cooperator with the American Creek Soil Conservation District, Reliance, South Dakota, the sub-surface tillage that he did after harvest in 1940 paid dividends this year. The yield was better, and both yield and quality were more uniform throughout the field. The yield was approximately double on the sub-surface tilled land. There was much less weed growth, which Mr. Lindley states, is an important factor when using a combine. He was able to combine the grain two weeks earlier on the sub-surface tilled area; this, of course, helped to get the crop harvested ahead of the grasshoppers.

Sub-surface tillage makes fall tillage possible. It is an aid in holding more moisture and controlling insects. If the fall growth of weeds can be prevented much moisture will be saved. After harvest, tillage does prevent weed growth.

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Scott, Director of State Rural Credits; and Mr. Engberg, Farm Credit Administration.

The District Association is to be congratulated on the fine way in which it brought the conservation work to the attention of everyone during this week. All phases of conservation were stressed in the publicity. Wildlife, soil, and moisture were all included in the speeches and news stories. The work of all of the agencies was brought to the attention of South Dakota, and no particular agency or group was given undue prominence. The week was even proclaimed as Conservation Week in Hecla, South Dakota by the Mayor, who urged all local people to seed their lawns and offered the assistance of the district technicians.

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UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

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